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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/072,605	02/05/2002	Michael J. Renn	ODC2000-1-CIPB	1467
5179	7590	07/06/2005	EXAMINER	
PEACOCK MYERS, P.C.			HUFFMAN, JULIAN D	
P O BOX 26927			ART UNIT	
ALBUQUERQUE, NM 87125-6927			PAPER NUMBER	
			2853	

DATE MAILED: 07/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/072,605

Applicant(s)

RENN, MICHAEL J.

Examiner

Julian D. Huffman

Art Unit

2853

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 June 2005 (amendment entered).
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,10-13 and 20-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,10,11,20,26 and 30 is/are rejected.
- 7) ☒ Claim(s) 2,12,13,21-25 and 27-29 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. Upon further search and consideration, a new ground(s) of rejection is made in view of newly found prior art, U.S. 6,348,687 B1 to Brockman et al.

#### ***Information Disclosure Statement***

2. The information disclosure statement filed 23 June 2005 fails to comply with 37 CFR 1.97(c/d) because it lacks a statement as specified in 37 CFR 1.97(e) and it lacks the fee set forth in 37 CFR 1.17(p). It has been placed in the application file, but the information referred to therein has not been considered.

Applicant states in the remarks that the IDS is being filed within three months of knowledge of the reference cited and that therefore no fee or certification is required under 37 C.F.R. 1.97(e). This statement is respectfully not consistent with 37 C.F.R. 1.97, which states that IDS' filed after a final rejection (1.97d), or a non-final rejection (1.97c), require the fee and statement.

#### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 10, 11, 20, 26 and 30 are rejected under 35 U.S.C. 102(e) as being anticipated by Brockmann et al. (U.S. 6,348,687 B1).

Brockmann et al. discloses :

With regards to claim 1, an apparatus comprising:

a material source means (fig. 9, element 902) for supplying a material to be deposited (column 6, line 57);

an atomization means (element 900) for producing a plurality of discrete particles from said material source means (tube 900 flows discrete particles from the source of particles);

a force application means comprising a carrier gas (902 holds carrier gas) for propelling said plurality of discrete particles generally toward a substrate (the carrier gas flows the particles towards the substrate, column 1, lines 38-41);

a collimation means comprising a coflowing sheath gas (element 903 holds sheath gas) which surrounds said carrier gas for controlling the direction of flight of said plurality of discrete particles (column 4, lines 61-67 and column 5, lines 16-18).

With regards to claim 11, a method of direct writing of a material (column 2, lines 1-3) the method comprising the steps of:

supplying the material to be deposited (fig. 9, element 902 and column 6, line 57);

atomizing the material to produce a plurality of discrete particles (element 900, tube 900 flows discrete particles from the source of particles);

applying a force by employing a carrier gas (902) to propel the plurality of discrete particles generally toward a substrate (column 1, lines 38-41);

collimating the plurality of discrete particles by surrounding the carrier gas with a coflowing sheath gas (903) to control the direction of flight of the plurality of discrete particles (column 4, lines 61-67 and column 5, lines 16-18); and

depositing the plurality of discrete particles on the substrate (column 1, lines 62-64).

With regards to claims 10 and 20, the coflowing sheath gas forms a boundary layer that prevents the plurality of discrete particles from depositing onto walls of an orifice nozzle (fig. 5a, the sheath gas injector 501 surrounds the carrier gas and prevents it from contacting the nozzle 300).

With regards to claims 26 and 30 a laser processes the discrete particles (column 1, lines 62-64).

***Allowable Subject Matter***

5. Claims 2, 12, 13, 21-25 and 27-29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julian D. Huffman whose telephone number is (571) 272-2147. The examiner can normally be reached on 9:30a.m.-6:00p.m. Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



JH  
30 June 2005



**Stephen D. Meier  
Primary Examiner**